

What is claimed is

1. A flyback type alternation power supply with primary/secondary
synchronize control, which comprises of:
 - a transformer;
 - 5 a primary switching unit comprising at least a first switching component
and a first control circuit, wherein, the first switching component is
connected to the primary side of the transformer; and the first control
circuit controls the conduction states of the switching component;
 - a secondary switching unit comprising at least a second switching
10 component, which is connect to the secondary side of the transformer;
and
 - an insulating unit, which is connected in between the first control circuit
and the second switching component;
 - wherein, the first control circuit controls the insulating unit to output a
15 cut-off command signal to the second switching component for entering
a cut-off state.
2. The flyback type alternation power supply in claim 1, wherein the first
switching component is one of small signal controlled MOSFET (Metal
Oxide Semi-conductor Field Effect Transistor) and thyristor.
- 20 3. The flyback type alternation power supply in claim 1, wherein the second
switching component is one of small signal controlled MOSFET (Metal
Oxide Semi-conductor Field Effect Transistor) and thyristor.
4. The flyback type alternation power supply in claim 1, wherein the
insulating unit is one of a transformer and a light coupler.

5. A flyback type alternation power supply with primary/secondary
synchronize control, which comprises of:

a transformer;

a primary switching unit comprising at least a first switching component

5 and a first control circuit, wherein, the first switching component is
connected to the primary side of the transformer; and the first control
circuit controls the conduction states of the switching component;

a secondary switching unit comprising at least a second switching

component and a second control circuit, wherein, the second switching
10 component is connected to the secondary side of the transformer; and
the second control circuit controls the conduction states of the second
switching component; and

an insulating unit, which is connected in between the first control circuit
and the second control circuit;

15 wherein, the first control circuit controls the insulating unit to output a
cut-off signal to the second control circuit, which commands the second
switching component to enter cut-off state after it receives a cut-off signal.

6. The flyback type alternation power supply in claim 5, wherein the first
switching component is one small signal controlled MOSFET (Metal Oxide

20 Semi-conductor Field Effect Transistor) and thyristor.

7. The flyback type alternation power supply in claim 5, wherein the first
control circuit is a pulse-width modulation control IC.

8. The flyback type alternation power supply in claim 7, wherein the assigned
number of the pulse-width modulation control IC is 3843, 3842 or 6841.

9. The flyback type alternation power supply in claim 5, wherein the second switching component is one of small signal controlled MOSFET (Metal Oxide Semi-conductor Field Effect Transistor) and thyristor.

10. The flyback type alternation power supply in claim 5, wherein the second control circuit comprises of:

a voltage level referencing circuit, which provides a voltage referencing level;

a buffer circuit, which outputs voltage for controlling resistance variation of the second switching component; and

a driving circuit, which adjusts the output voltage value of the buffer circuit base on the referencing voltage level; and keeps the voltage drop produced by the current flowing through the second switching component at a fixed voltage value; hence, allowing the resistance of the second switching component to vary inversely proportional along with output current of the transformer.

11. The flyback type alternation power supply in claim 5, wherein the insulating unit is one of a transformer and a light coupler.